

ABSTRACT

The invention relates to a method for adjusting the data transmission rate in a fieldbus system (10) which is suitable to control safety-critical processes and which comprises at least one subscriber (12, 14) connected to a fieldbus (20), wherein in a first phase the subscriber/subscribers log on at a unit (30/central unit) centrally connected to the fieldbus with a first low data transmission rate. In a second phase the central unit (30) sets the data transmission rate at the subscriber/subscribers (12, 14) to a predetermined higher second value. In a third phase the subscriber/subscribers (12, 14) log on again at the central unit with a higher data transmission rate; and the central unit (30) shuts down the fieldbus (20) if it detects a deviation of the number of subscribers (12, 14) logged on in the first and the third phase. The invention also relates to a fieldbus system for implementing said method